

**MULTIPLE-TRANSDUCER SENSOR SYSTEM AND METHOD WITH  
SELECTIVE ACTIVATION AND ISOLATION OF INDIVIDUAL TRANSDUCERS**

5

**ABSTRACT**

A transducer-based sensor system, including a transducer array having a plurality of transducers, a selector coupled with the transducer array and an output processing subsystem. Defined between each transducer and the output processing subsystem is an output transmission path associated with the individual transducer. The selector is configured to apply control signals to the transducer array to cause the array to have at least one selected transducer and at least one unselected transducer. The system is configured so that, for a selected transducer, the output transmission path for that transducer is enabled, so as to permit output signals to be transmitted from the selected transducer to the output processing subsystem. The system is further configured to isolate any unselected transducers, by disabling the output transmission path for such transducers, to thereby prevent transmission of output signals to the output processing subsystem.